International Application No. PCT/EP2004/003880

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LIST OF CURRENT CLAIMS

- 1. (Currently Amended) A contactless data carrier with an antenna and a chip, comprising a characterized in that on the data carrier on which are disposed data[[,]] which are transmittable to a reading device via an optical data transmission channel, and on which are disposed data[[,]] which are transmittable to a reading device via an antenna-based data transmission channel.
- 2. (Currently Amended) The data carrier according to claim 1, wherein characterized in that the chip has storage areas, including wherein at least one storage area that is freely readable and at least one storage area that is only readable after an authentication of the data carrier and the reading device.
- 3. (Currently Amended) The data carrier according to claim 2, wherein characterized in that the second storage area is only readable after an authentication has at least one first data record and the freely readable storage area has at least one second data record, which is clearly allocated to the first data record and is derivable from the first data record.
- 4. (Currently Amended) The data carrier according to <u>claim 2</u>, <u>wherein</u> one of the claims 2 or 3, characterized in that the stored data records are stored as data records encrypted with a cryptographic key.
- 5. (Currently Amended) The data carrier according to claim 3, wherein or 4, characterized in that the second data record forms a compression value of the first data record.
- 6. (Currently Amended) The data carrier according to <u>claim 1</u>, <u>wherein</u> any of claims 1 to 5, characterized in that on the data carrier a light-sensitive component is disposed on the data carrier and , which controls the function of the chip in dependence on the brightness.

- 7. (Currently Amended) The data carrier according to <u>claim 1</u>, <u>wherein optically</u> <u>readable information is applied</u> <u>any of claims 1 to 6</u>, <u>characterized in that onto the data carrier is applied optically readable information</u>.
- 8. (Currently Amended) The data carrier according to claim 7, wherein characterized in that a matrix code is applied onto the data carrier is applied a matrix code.
- 9. (Currently Amended) The data carrier according to claim 7, wherein a bar code is applied characterized in that onto the data carrier is applied a bar code.
- 10. (Currently Amended) The data carrier according to <u>claim 1</u>, <u>wherein a display for representing optical data is disposed</u> any of the above claims, characterized in that on the data carrier is disposed a display for representing optical data.
- 11. (Currently Amended) The data carrier according to <u>claim 1</u>, <u>wherein an illuminant</u> for sending optical signals is <u>disposed</u> any of the above claims, characterized in that on the data carrier is <u>disposed</u> an illuminant for sending optical signals.
- 12. (Currently Amended) The data carrier according to <u>claim 1</u>, <u>wherein an optical receiving means for receiving optical signals is disposed</u> any of the above claims, characterized in that on the data carrier is disposed an optical receiving means for receiving optical signals.
- 13. (Currently Amended) The data carrier according to <u>claim 1</u>, <u>wherein a loudspeaker</u> <u>is disposed</u> any of the above claims, characterized in that on the data carrier is disposed a loudspeaker.
- 14. (Currently Amended) The data carrier according to <u>claim 1</u>, <u>wherein a vibration</u> <u>detector is disposed</u> any of the above claims, characterized in that on the data carrier <u>is disposed a vibration detector</u>.

- 15. (Currently Amended) The data carrier according to <u>claim 1</u>, <u>wherein</u> any of the above claims, characterized in that an authentication requires the use of the two data transmission channels.
- 16. (Currently Amended) A method for reliably determining the deliberate use of a contactless data carrier, comprising, characterized in that in dependence on the data to be exchanged between the data carrier and a reading device, in addition to an antenna-based contactless data transmission, effecting an optical data transmission can be effected with the help of data disposed on the data carrier.
- 17. (Currently Amended) The method according to claim 16, <u>comprising effecting</u> characterized in that the data transmission is effected in a bi-directional fashion.
- 18. (Currently Amended) The method according to claim 16, comprising selectively or 17, characterized in that any arbitrary switching between the optical and the antennabased data transmission is possible.
- 19. (Currently Amended) The method according to <u>claim</u> any of claims 16 to 18, characterized in that <u>including effecting</u> at least a one-sided authentication (27, 32) is <u>effected</u> between the reading device and the data carrier.
- 20. (Currently Amended) The method according to claim 19, wherein characterized in that the authentication is effected by the optical data transmission.
- 21. (Currently Amended) The method according to claim 19, wherein or 20, characterized in that the authentication (27, 32) is effected in such a way that it requires the use of the both contactless antenna-based data transmission and optical data transmission that together define two data transmission channels.
- 22. (Currently Amended) The method according to <u>claim 21</u>, <u>wherein</u> any of claims 16 to <u>21</u>, <u>characterized in that</u> a random number is requested via one of the two data

transmission channels, either the optical or the antenna-based data transmission channel, and is transmitted via the respective other data transmission channel.

- 23. (Currently Amended) The method according to <u>claim 16</u>, <u>wherein</u> any of claims 16 to 22, characterized in that for a readout of a first data record (23) in a first procedure step the reading device reads out a second data record (25), which is allocated to the first data record, and data (20) optically represented on the data carrier.
- 24. (Currently Amended) The method according to claim 23, wherein characterized in that

in a second procedure step. (26) the reading device forms a value derived from the read-out data and a secret key; , that

in a third procedure step, on the basis of the derived value, the authentication (27) between the reading device and <u>the</u> data carrier is effected; and that

in a fourth procedure step, the first data record (23) is read out by the reading device.

- 25. (Currently Amended) The method according to claim 23, wherein or 24, characterized in that in a fifth procedure step, from the first data record a compression value is formed, and in a further procedure step a comparison is effected between the such formed compression value and the second data record.
- 26. (Currently Amended) The method according to <u>claim 19</u>, <u>wherein</u> any of claims 19 to 25, characterized in that the authentication (27, 32) is carried out in the manner of a challenge-response method.
- 27. (Currently Amended) A reading device for reading a contactless data carrier, comprising characterized in that it has means for reading optical data.
- 28. (Currently Amended) The reading device according to claim 27, <u>comprising</u> characterized in that it has means for sending an optical signal.

- 29. (Currently Amended) The reading device according to claim 28, comprising characterized in that it has means for modulating the optical signal.
- 30. (Currently Amended) The reading device according to claim 28, comprising characterized in that it has an infrared interface.
- 31. (Currently Amended) The reading device according to <u>claim 27</u>, <u>wherein the device</u> any of claims 27 to 30, characterized in that it is formed as a mobile terminal.
- 32. (Currently Amended) The reading device according to <u>claim 27</u>, <u>wherein the device</u> any of claims 27 to 31, characterized in that it has an interface for the near field communication.
- 33. (Currently Amended) The reading device according to <u>claim 27</u>, wherein the <u>device</u> any of claims 27 to 32 characterized in that it is adapted to read a contactless data carrier according to <u>claim 1</u> any of claims 1 to 16.